

REMARKS

After entry of the foregoing amendment, claims 3-10 and 13-32 are pending in the application.

Applicants acknowledge with thanks the further consideration given to the application by the Examiner.

The allowance of claims 3-9, and the indication of allowable subject matter in claims 22 and 24, is noted with appreciation.

The rejection of claim 10 is respectfully traversed. Much is made of “off the shelf” components in the Action. However, it will be recognized that the invention is not “off the shelf.” Rather, the invention contemplates modifying and extending technology in an existing scanner to provide new functionality:

The Examiner is correct that a watermark needs a watermark decoder if it is to be useful. However, the Examiner has not indicated – and the art does not suggest – why an artisan faced with this situation would have done other than capture image data with a scanner, and pass same to a separate computer for watermark decoding. None of the art teaches or suggests modifying the software internal to a scanner to effect watermark decoding, as presently claimed.

Nor is there any suggestion in the art that would have led an artisan to undertake such a modification to a scanner of the type particularly detailed in claim 10, e.g., including a linear sensor array together with first and second spaced-apart 2D sensor arrays, where the latter arrays serve as motion sensors, and the linear array provides the scan data.

The rejection of claim 13 is similarly traversed. Although the preamble sets forth a known scanner, there is no teaching or suggestion in the art that would have led an artisan to modify programming for the scanner’s internal CPU to effect the methodology detailed in the remainder of the claim. Rather, the art would lead such an artisan to pass the scanner data to a computer for watermark processing.

Again, as in claim 10, there is no teaching or suggestion in the art that would have led an artisan to employ a scanner of the particular construction detailed in the claim absent impermissible use of hindsight.

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The rejection of claim 13 also seems to be based on a factual error, namely:

“All of the elements prior to ‘the improvement comprising’ are necessary elements of *any* fully functional optical code scanner of the sensor array type.”

(Emphasis in original.)

It will be recognized that the scanner detailed in the claim 13 preamble includes “a visual output device,” and specifies that the CPU controls the visual output device in accordance with information decoded from the scan data.

A visual output device is not a necessary element of an optical scanner. No explanation is offered as to why an artisan would incorporate such an element in the claimed scanner.

Finally, the Action has hybridized the Jepson preamble together with isolated teachings from Kurowski without appropriate suggestion to do so.

It should be noted that Kurowski concerns video watermarking. There is no logical linkage between hand-scanners and video watermarking. For this reason alone the rejection fails.

Moreover, the only rationale offered in support of the proposed combination is the following:

In view of the applicant’s admission, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known off-the-shelf scanner to perform Kurowski’s process because using a typical, off-the-shelf scanner is often cheaper than developing the same hardware in-house.

This statement fails to address the combination of isolated elements of Kurowski’s teachings in the detailed scanner. Rather, the statement simply gives a reason favoring use of off-the-shelf scanner (which argument, as noted earlier, is misplaced).

Again, it appears that the rejection has been tainted by hindsight, rather than being driven by teachings or suggestions in the art.

As to claim 14, applicants respectfully submit that the meaning of “calibration signal” employed in the Action is not a reasonable interpretation. However, to make the distinction more apparent, claim 14 has been amended.

As to claim 15, there again is no *prima facie* basis for applying the video watermark teachings of Kurowski to the claimed hand-scanner particularly claimed.

No *prima facie* case of obviousness of claims 16-20 or 22 has been established, for the same reasons noted above in connection with claim 13-15.

Moreover, nothing in the cited art relates to the limitation of claim 20 re “identifying a portion of said scan data that is sampled at a higher sampling rate than other portions.” Kurowski’s criticism of brute force processing does not teach or suggest the particular approach detailed in claim 20.

The rejection of claims 21 and 23, based on Katoh, are also traversed.

Katoh discloses a barcode scanner (e.g., for a supermarket) that emits scanning beams out two windows.

Katoh’s use of two scanning windows is not to achieve any advantageous binocular-based effect. Rather, Katoh scans out two windows in order to be more forgiving in placement of the articles being scanned (“The object of the present invention is to easily read bar codes without being affected by the position at which they are attached to an object that is to be read...”¹).

Moreover, Katoh indicates that only a single window is used at a time. Scanning out both windows simultaneously is taught *against* by Katoh to avoid undesired interference (“Two sets of laser beam sources are alternately turned on after each time T, and the reflected light is detected by the light-receiving elements to read the bar codes, while eliminating the noise (interference) caused by the other scanning beam”²).

And again, claim 21 requires “a visual output device,” and specifies that the scanner memory includes “program instructions causing the CPU to control the visual output device, at least in part, in accordance with information decoded from the scan data.” Again, the cited art is silent on such a feature, and fails to teach or suggest why an artisan would adopt the claimed methodology in a scanner of the detailed design.

Likewise, the rejection of dependent claim 23 is deficient, as it is based on hindsight reconstruction rather than a teaching or suggestion from the art.

¹ Katoh, col. 2, lines 31-33.

² Katoh, col. 6, lines 9-14.